

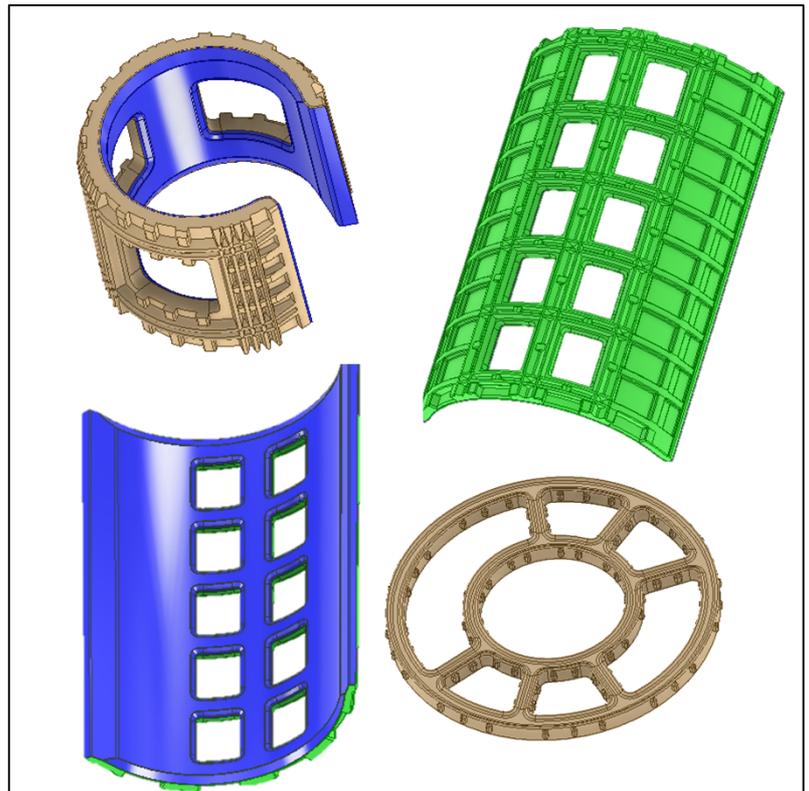
# EV Thermal Management

## Multiway Coolant Valve Seal



### Our Features

With the development of electric vehicles, multi-port coolant valves in thermal management systems are facing increasingly stringent sealing requirements—for example, more complex fluid channels, lower internal leakage, reduced installation space, long-term wear resistance, low torque, and low load requirements. To address these market needs, Parker has designed **patented** solutions: a PTFE+EPDM composite internal-leakage sealing technology, and an external-leakage sealing solution designed for low-load conditions.



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### Product Features & Benefits

- Highly customized.
- Proven designs and materials
- Application-specific seal loads can be achieved by adjusting the cross-sectional geometry and/or material selection.
- Multiple distinctive compound choices



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# Standard Materials

Originals	Test Method	EA947-40	EA957-50
Hardness, Shore 'A', points	ASTM D2240	43	53
Tensile Strength, Mpa	ASTM D412	11.8	14.9
Elongation, %	ASTM D412	539	451
Compression Set, % (Plied Slabs)	ASTM D395B	8.0	8.8
Non-Brittle after 3 min @ -50°C	ASTM D2137A	PASS	PASS
TR-10 (°C)	ASTM D1329	-48	-45
	ASTM D471	Immersion in 50/50 Coolant/Distilled Water 96 hrs @ 150°C	Immersion in 50/50 Coolant/Distilled Water 96 hrs @ 150° C
Hardness Change, pts		-0.2	0
Tensile Strength, Mpa %		10.2	12.4
Elongation, %		523	393
Volume Change, %		+0.5	+0.9

## About Parker STA Division

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- Formerly Rayco (Wuxi) Technologies
- Acquired by Parker in 2007; Division of Engineered Materials Group (EMG)
- Three locations: Wuxi (SIP);Wuxi(Xishan) ;Shanghai BU(Seal Packing);
- 600 associates
- ISO13485, ITAF16949, ISO14000, ISO9001, ISO17025



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